



United States Department of the Interior

FISH AND WILDLIFE SERVICE

**Ecological Services
4000 Airport Parkway
Cheyenne, Wyoming 82001**

In Reply Refer To:
ES-61411/W.35/WY9079

JAN 06 2004

Steve Blazek, NEPA Compliance Officer
Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

JAN 10 REC'D

Dear Mr. Blazek:

This letter is in response to your December 22, 2004, Draft Environmental Assessment, received in our office on December 27, for the proposed low-speed Clipper wind turbine demonstration project located in section 1, T21N, R79W in Carbon County, Wyoming. The project includes one 262-foot tall wind turbine and associated facilities including a 240-foot tall meteorological tower (lattice-guyed type), 400 square foot building, and underground electric lines. Our office previously provided scoping comments for this project in our letter of November 10, 2004 (WY8927). We appreciate the opportunity to provide you with the following comments based on our review of the Draft Environmental Assessment (DEA).

General Comments

The U.S. Fish and Wildlife Service (Service) understands the need to determine the economic and technical feasibility of the Clipper wind turbine design in order to explore possible opportunities for reducing costs over current wind turbine configurations. However, we strongly encourage the Department of Energy (DOE) to incorporate measures to avoid and/or minimize effects to wildlife and their habitats. These efforts should be an integral part of project planning. To assist in project planning the Service has issued *Interim Guidance on Avoiding and Minimizing Impacts to Wildlife from Wind Turbines* (Guidance). The Guidance document can found at the following website <http://www.fws.gov/r9dhcbfa/wind.pdf>.

Although the Guidance is strictly voluntary, it can assist industry in avoiding and/or minimizing impacts to wildlife and their habitats through (1) evaluation of potential Wind Resource Areas (WRAs), (2) determining proper location and design of turbines and associated structures within WRAs selected for development, and (3) conducting pre and post-construction research studies and monitoring to identify and/or assess impacts to wildlife. For your information, the Guidance is based on current science and will be updated as new information becomes available.

We encourage the DOE and its non-federal representatives to follow the Guidance and, in cooperation with the Service, to conduct science-based research to provide the necessary information on the impacts of wind energy development on wildlife and their habitats. We further encourage the DOE to look for opportunities to promote wildlife conservation through compliance with the *Fish and Wildlife Service Mitigation Policy* (Federal Register 46 (15), January 1981). The mitigation policy follows the steps recommended in the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act to avoid, minimize or compensate for negative impacts. Mitigation may involve (1) taking no action, (2) limiting the degree of the activity, (3) repairing, rehabilitating, or restoring an affected environment, and (4) acquiring replacement habitat and/or conservation easements.

It is important to note that mitigation does not apply to "take" of species protected under the Endangered Species Act (Act) of 1973, as amended, 16 U.S.C. 1531 *et seq.*, Migratory Bird Treaty Act (MBTA), 16 U.S.C. 703, and/or the Bald and Golden Eagle Protection Act (BGEPA), 16 U.S.C. 668.

Specific Comments

Page ii, Executive Summary: The DEA states that the wind energy company will monitor impacts to bats and avian species by conducting mortality surveys during the first 12 months of operation of the Clipper wind turbine. *Determining post-construction survey and monitoring needs should be based on the results of the pre-construction baseline surveys. Monitoring effort may be cursory in areas where recorded pre-construction use by bats and/or avian species is low. However, it may be necessary to conduct intensive monitoring in areas of documented high use. For this reason the Service recommends that the company collect pre-construction baseline wildlife information to evaluate the site for its importance to bats and avian species. Surveys should be conducted by a qualified biologist during the appropriate time of year to observe activities related to courtship, nesting, rearing of young, foraging, and migrating.*

Page iii, Executive Summary: The DEA states that the proposed Clipper wind turbine site is immediately adjacent to the existing Platte River Power Authority-Medicine Bow Wind Farm (PRPA). It also states that the proposed Clipper wind turbine would likely result in the mortality of 6.7 bats per year, 0.15 raptors per year, and 15.4 passerine birds per year. *The Service recommends that the DEA include detailed information regarding the methods in which these numbers were obtained. Additionally, we recommend an in-depth discussion of the mortality that may be expected from a fully developed wind farm with this specific type of turbine.*

Page 12, 2.1.2 Construction and Installation Phase, paragraph 4: The DEA states that the proposed lattice-type meteorological tower will be 240 feet tall and will be supported by three sets of guy wires. *The Service strongly recommends that towers, including communication and meteorological towers not exceed 199 feet and use construction techniques that do not require guy wires. Please refer to the Guidance document as indicated above and see attachment: Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning.*

Page 15, paragraph 2: The DEA states that the construction/installation phase would start in December 2004. *Please see our comment above regarding the importance of pre-construction baseline surveys.*

Page 21, paragraph 3: The DEA states that post-construction surveys would consist of methods similar to those used by the SeaWest Foot Creek Rim Wind Plant. These methods include walking transects every two weeks within 250-feet of the tower looking for casualties. *The Service is concerned that mortality surveys, conducted at two week intervals, may not capture the extent of the actual mortalities due to carcasses being scavenged or desiccation of carcasses occurring so that observation becomes difficult or impossible. Additionally, the description of the proposed Clipper wind turbine states that the rotor and blade diameter is 305 feet and has almost five times the wind-swept area as the smaller wind turbines at the comparative wind farm. Therefore, we are also concerned that surveys within 250-feet of the tower may not encompass all areas of potential strikes.*

Page 43, 3.2.8.3 Raptors: The DEA states that there are five raptor nests/eyries within 2.0 miles of the project area. However, no monitoring has occurred at these sites to determine historic activity or current status. *The Service recommends that a current raptor survey be conducted with 1.0-mile of the project area to determine raptor use such as nesting, foraging and migration corridors. This baseline information should be used in project planning.*

Page 43, Upland Game Birds, paragraph 2: The DEA states that two greater sage-grouse leks occur within 2-miles of the project area. However monitoring of these leks has been sporadic since 1980. Therefore the Wyoming Game and Fish Department (WGFD) is collecting additional data before declaring these leks as no longer active. *The Service recommends that, until such time as the WGFD declares these leks not active, these leks and adjacent nesting habitat be managed following the guidelines by Connelly et al. 2000 (also known as the WAFWA guidelines).*

Page 45, 3.2.8.5: The DEA states that several species of migratory birds may potentially use the project area. However, the DEA does not mention whether construction will occur outside of the nesting season. *The Service is concerned that construction activities, occurring during the nesting season, may result in direct take of active nests and/or young. To avoid such take we recommend that construction and related activities be conducted outside of the nesting season.*

Page 63, 4.8.1.2, Other Mammals: The DEA indicates that approximately 1.34 bats per wind turbine were killed at SeaWest's Foote Creek Wind Farm located approximately 9-miles south of the proposed project area. It also states that wind turbines at the SeaWest farm are much smaller than the proposed Clipper wind turbine. The Clipper has a wind-swept area that is almost five times larger than the SeaWest turbines. The DEA goes on to state that no bat or avian mortality studies have been conducted at the Platte River Power Authority-Medicine Bow Wind Farm located immediately adjacent to the proposed Clipper wind turbine site. In order to determine potential bat mortalities the DEA makes a comparison between the SeaWest wind turbines and the proposed Clipper wind turbine (10 miles apart). The DEA assumed that all factors were constant between the two project areas except the wind swept area between the two types of turbines. This resulted in a potential of 6.7 bat mortalities per year for the Clipper wind turbine as compared to the 1.34 bats per turbine/per year for the SeaWest turbines. The DEA states that this is a worst case scenario based

on the limited nesting or roosting habitat located within the project area as compared to the Foote Creek Rim area. Finally, the DEA states that mortality surveys (post-construction) would document impacts to bat species. *Please refer to our previous comments regarding the importance of baseline surveys to determine use of the project area by bats and avian species. Use of the project area may also include migration corridors. The Service feels strongly that you include migration surveys in your baseline studies. Additionally, data on wildlife use and mortality collected at one wind energy facility may not necessarily be applicable to other sites; as each site possesses discrete site specific information and as a result may have different effects on wildlife. Since wind energy is rapidly expanding into habitats and regions that have not been well studied we strongly encourage a precautionary approach to site selection that includes an in-depth study of the specific area as well as review of existing pertinent information.*

Page 65, 4.8.1.3, Raptors:

1. The DEA states that no raptor nests are located within 1-mile of the project area. However, it also states that there are 5 nests/eyries within 2.0 miles of the site for which no historic occupancy data is available. *Please refer to our above comment regarding the importance of a current raptor survey.*
2. The DEA states it is unlikely that nesting raptors or raptor populations would be impacted by the proposed action, but that individual birds could be killed as a result of flying into the rotating turbine blades. *Raptors and other migratory birds can also be killed when they fly into guy wires. Therefore, we encourage you to consider erecting a meteorological tower that is not guy wired. We also remind you that under the MBTA, take is prohibited.*
3. The DEA states that the SeaWest wind farm located 9 miles away had few raptor mortalities despite the high use of the area by raptors. *Please refer to our previous comment regarding the use of wildlife data from existing wind farms to predict wildlife impacts for the Clipper wind turbine especially since the SeaWest turbines have a much smaller blade swept area than the Clipper turbine. Information from other sources should supplement the baseline information collected for the Clipper turbine, not replace that information.*

Page 68, 4.8.1.4, Upland Game Birds: The DEA states that the action would result in the loss of less than 10-acres of native vegetation and is unlikely to have an adverse effect on greater sage-grouse, although some birds may be killed by vehicles and the presence of the turbine may adversely affect nesting activities within and near the site. The DEA goes on to discuss measures to minimize effects to sage-grouse. *The Service reminds you that, despite our recommendation to find the greater sage-grouse unwarranted for listing at this time, we continue to have concerns regarding sage-grouse population status, trends and threats, as well as concerns for other sagebrush obligates. We strongly recommend that habitats be managed following the guidelines by Connelly et al. 2000 (also known as the WAFWA guidelines).*

Page 70, 4.8.1.5, Other Birds: The DEA cites data from the SeaWest wind farm regarding migratory bird mortalities and uses this data to predict migratory bird mortality at the proposed Clipper wind turbine. *The Service is concerned that data from a site 9 or 10 miles away is used exclusively to predict avian mortalities at the proposed Clipper wind turbine. We believe that information from*

other wind farms may serve to supplement data collected from the proposed site, but not replace it, as migratory bird use may differ greatly from site to site. We recommend that you determine seasonal use in the area by migratory birds, including raptors. This may include nesting, roosting, foraging and migrating.

Page 77, 4.10, Irreversible and Irretrievable Commitment of Resources: The DEA states an irreversible and irretrievable commitment of resources would include the loss of productivity (i.e., forage and wildlife habitat) from lands involved in the project...and loss of animals due to mortality. *The Service believes that, through the use and implementation of the Guidance document as discussed above and the collection of science-based data for this proposed project, the Clipper wind turbine project can move forward with little or no adverse effects to wildlife and their habitats.*

We appreciate your efforts to ensure the conservation of endangered, threatened, and candidate species and migratory birds. If you have further questions regarding our comments or your responsibilities under the Act, please contact Kathleen Erwin at 307-772-2374 extension 28.

Sincerely,



Brian T. Kelly
Field Supervisor
Wyoming Field Office



References

Connelly J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wildlife Society Bulletin 28(4): 967 - 985.

cc: BLM, Field Manager, Rawlins (M. Storzer)
FWS, Federal Activities Coordinator, Lakewood (R. Dach)
WGFD, Non-Game Coordinator, Lander (B. Oakleaf)
WGFD, Statewide Habitat Protection Coordinator, Cheyenne (V. Stelter)